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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,423

02/22/2007

Colin William Newport

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EXAMINER

BLACK, MELISSA ANN

ART UNIT

PAPER NUMBER

3612

MAIL DATE

DELIVERY MODE

12/19/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/567,423	<b>Applicant(s)</b> NEWPORT, COLIN WILLIAM	
	<b>Examiner</b> MELISSA A. BLACK	<b>Art Unit</b> 3612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 18-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

Claims 1-17 have been cancelled and Claims 18-23 are pending in the application, and are rejected as set forth below.

#### *Claim Rejections - 35 USC § 103*

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by US Pat # 6,406,088 to Tate.

Tate discloses a unitary hollow structural member for a vehicle frame, the member comprising: a body (20) with a **generally** constant first wall thickness ( $\delta$ ); and a first end (21) adapted to be axially deformed upon application of a force on said first end, said force being directed at least partially in the axial direction of the first end, said first end including a weakened section having a generally constant second wall thickness, wherein said second wall thickness is less than said first wall thickness, and said first end further including a deformation initiation site comprising a tapered portion, wherein the cross sectional area of said tapered portion is gradually reduced along an axial direction towards said first end. Re claim 20, Tate discloses said structural member comprises a vehicle frame side rail, cradle, or pillar (see figure 1).

Re Claim 18, Tate fails to disclose that the structural member is metal, but does that it is known to make them metal, and therefore it would have been obvious to one with ordinary skill in the art at the time the invention was made that Tate would be capable of being made of metal.

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3. Claims 19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat # 6,406,088 to Tate in view of JP 61074713 to Shohei.

Re Claim 19, Tate fails to disclose the entire length of said taped section comprises the second wall thickness.

Shohei teaches that it is possible for a taped section of a pipe to have a constant wall thickness (See figure 2(B)).

It would have been obvious to one with ordinary skill in the art at the time the invention was made to have the tapered section have the second wall thickness over its entire length in order to have a uniform thickness for deformation.

Re Claim 21, the rejection for 20 is hereby referenced.

4. Claims 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 2007569 to Withers in view of JP 61074713 to Shohei.

Withers discloses the method for forming a hollow structural member for a vehicle frame and having a weakened end section integral therewith for absorbing energy, said end section having a reduced wall thickness, the method comprising the steps of: providing a tubular member to be formed, the tubular member having a generally constant first wall thickness and a first end to be provided with said weakened portion; providing a first die having an opening corresponding generally with the outer dimensions of the tubular member; providing a mandrel capable of being inserted within the said first die opening, the clearance between said mandrel and the die opening corresponding to a desired second wall thickness of the tubular member; placing the tubular member within the first die opening and axially moving the first die over a first length of the tubular member; inserting the mandrel into the first end of the tubular member

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along a second length of the tubular member less than the first length, said second length comprising the length of the end section; sliding the first die over the tubular member and over the mandrel thereby causing the wall thickness of the tubular member first end to be reduced to a generally constant thickness corresponding to said second wall thickness; extracting the mandrel from the tubular member.

Withers fails to disclose providing a second die having a tapered die opening with an inlet section having the larger diameter; introducing said tubular member first end into the inlet section of the second die opening and forcing constriction of said first end section to assume the shape of the second die opening while maintaining said second wall thickness.

Shohei discloses in a second step the use of a second die having a tapered die opening with an inlet section having the larger diameter; introducing said tubular member first end into the inlet section of the second die opening and forcing constriction of said first end section to assume the shape of the second die opening while maintaining said second wall thickness (Figure 2(B)).

It would have been obvious to us step 2(B) as taught by Shohei on the device of Withers in order to taper the end of the tube in order to make it absorb more energy.

Re Claim 23, Shohei discloses the tube can be used on a vehicle and it would be obvious to use the method to produce other vehicle part such as frame side rail, cradle, or pillar.

### ***Response to Arguments***

5. Applicant's arguments filed 30 September 2008 have been fully considered but they are not persuasive. Regarding Rejections under 35USC 102(b), Applicant argues that the body of Tate fails to disclose the body has a generally constant first wall thickness, and that it is

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gradually reduced from one end to the other, but as claimed **generally constant** the wall thickness of Tate would be **generally constant** from  $\delta$  to the end 22. From Figure 3 there is not much difference in the  $\delta$  to 22 making it **generally constant**. As for the formed metal member added to the preamble, even though Tate discloses that metal was not used because it has a tendency to buckle it still would have been obvious that metal is known to be used in the art and that the design is capable of being made of metal for metal would be a mere design choice. Regarding Rejections under 35USC 103(a), Shohei, discloses in the steps that one of ordinary skill in the art would be capable of tapering an end of tube, Shohei may continue on in the process and pull 21A out further working the material but one of ordinary skill in the art would be capable of stopping at that process and only tapering the end of the tube keeping the constant wall thickness. These are known methods of metal working and one of ordinary skill in the art would be capable of using all or one step to form a piece of metal tubing.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELISSA A. BLACK whose telephone number is (571)272-4737. The examiner can normally be reached on M-F 7:00-3:30 ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on (571) 272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Glenn Dayoan/  
Supervisory Patent Examiner, Art Unit  
3612

/M. A. B./  
Examiner, Art Unit 3612  
12/15/08

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